Webinar SolarPACES & EuroSun 2026

Absolicon & SavoSolar

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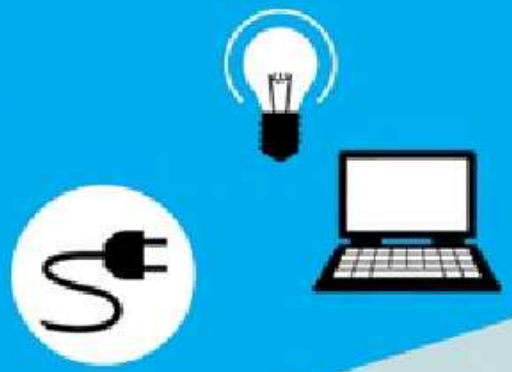
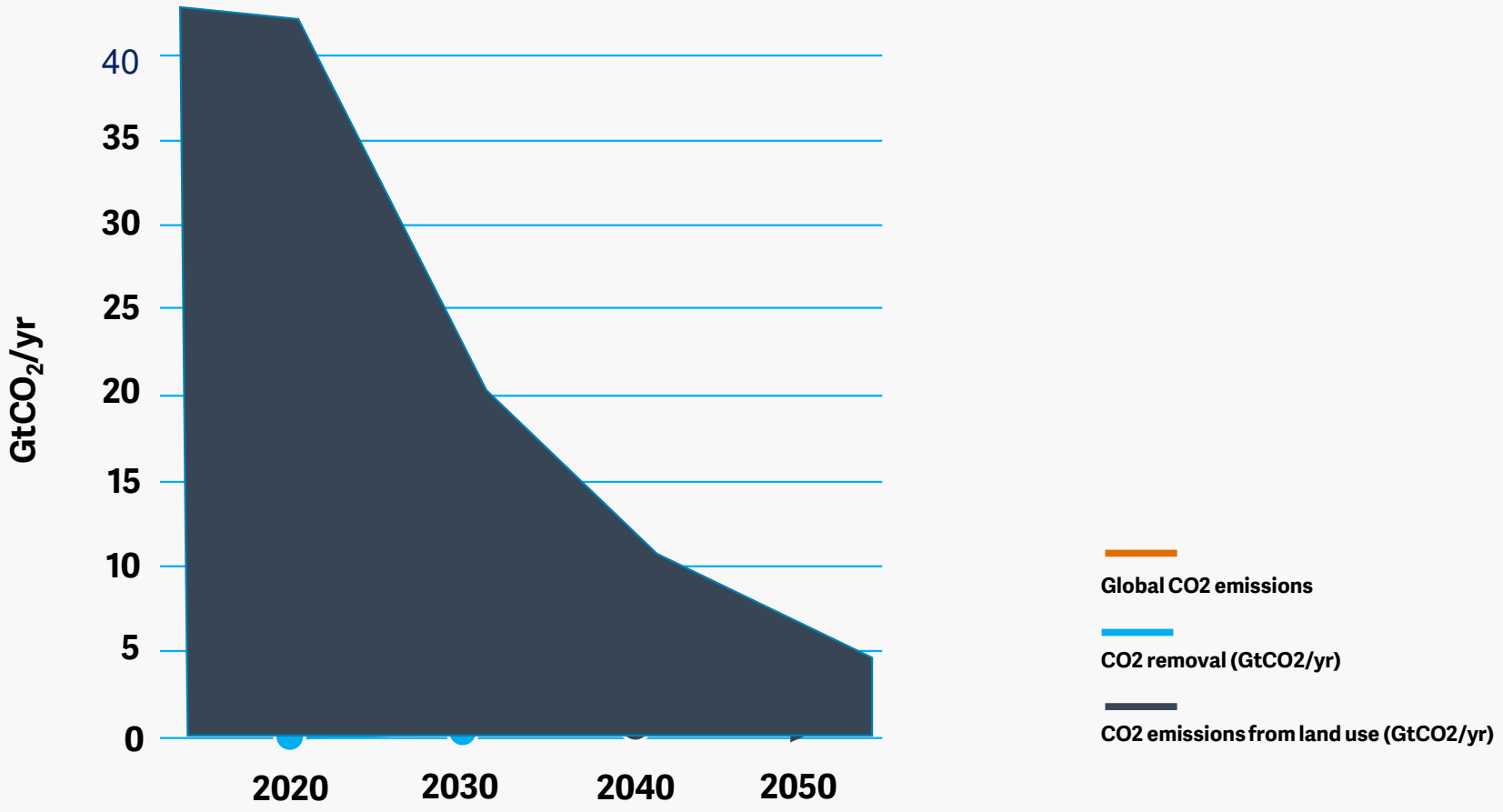
50%

20%

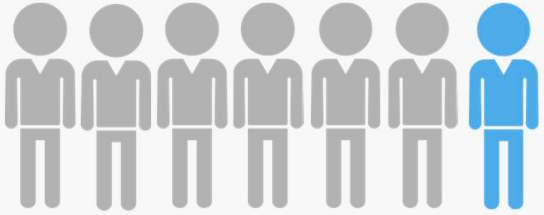


30%

IPCC roadmap for 1,5°C Carbon law

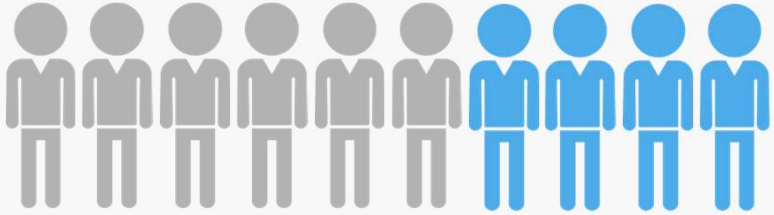


Population development and GDP



Idag

8,3 billion people
1 billion middle class

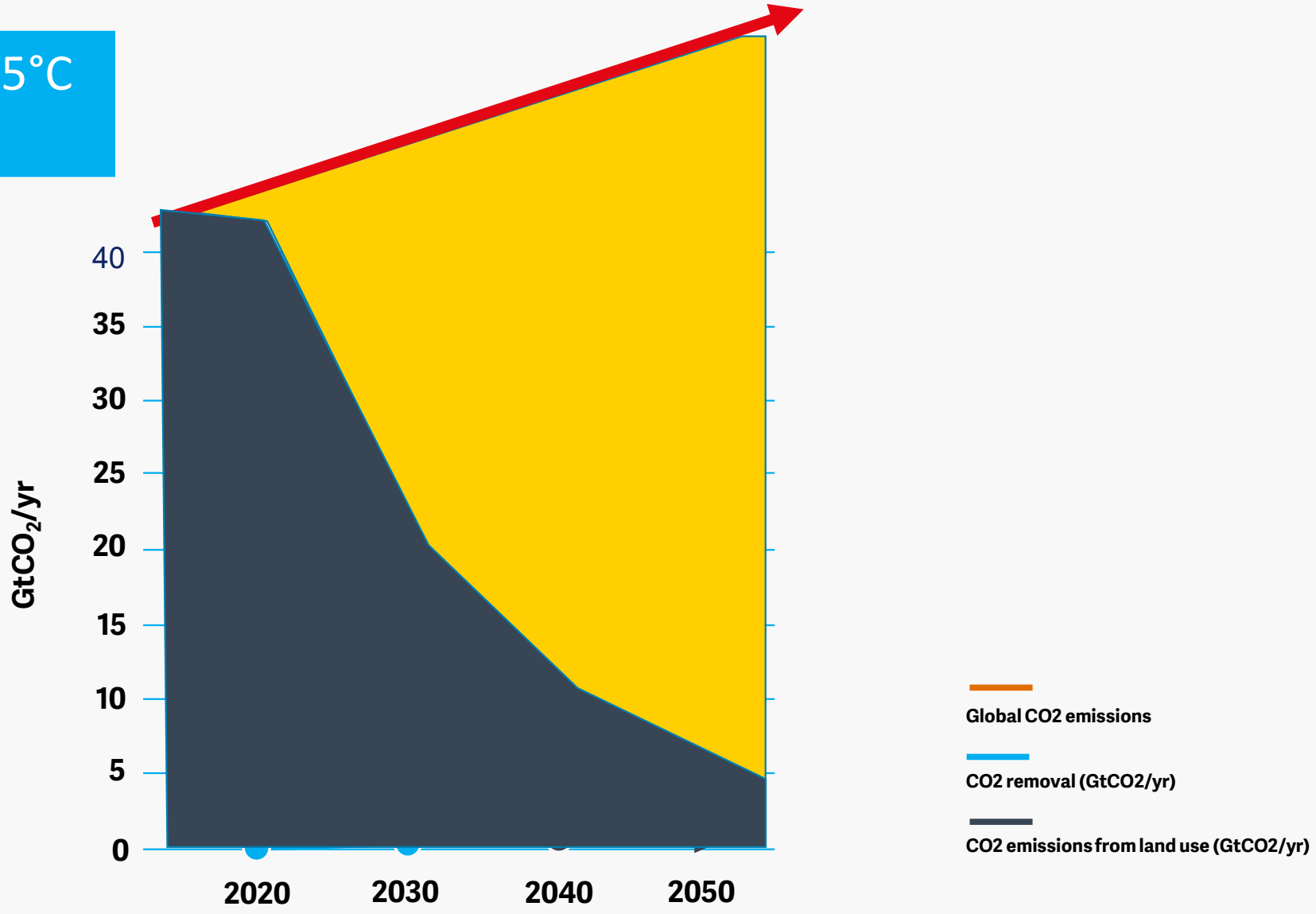


År 2050

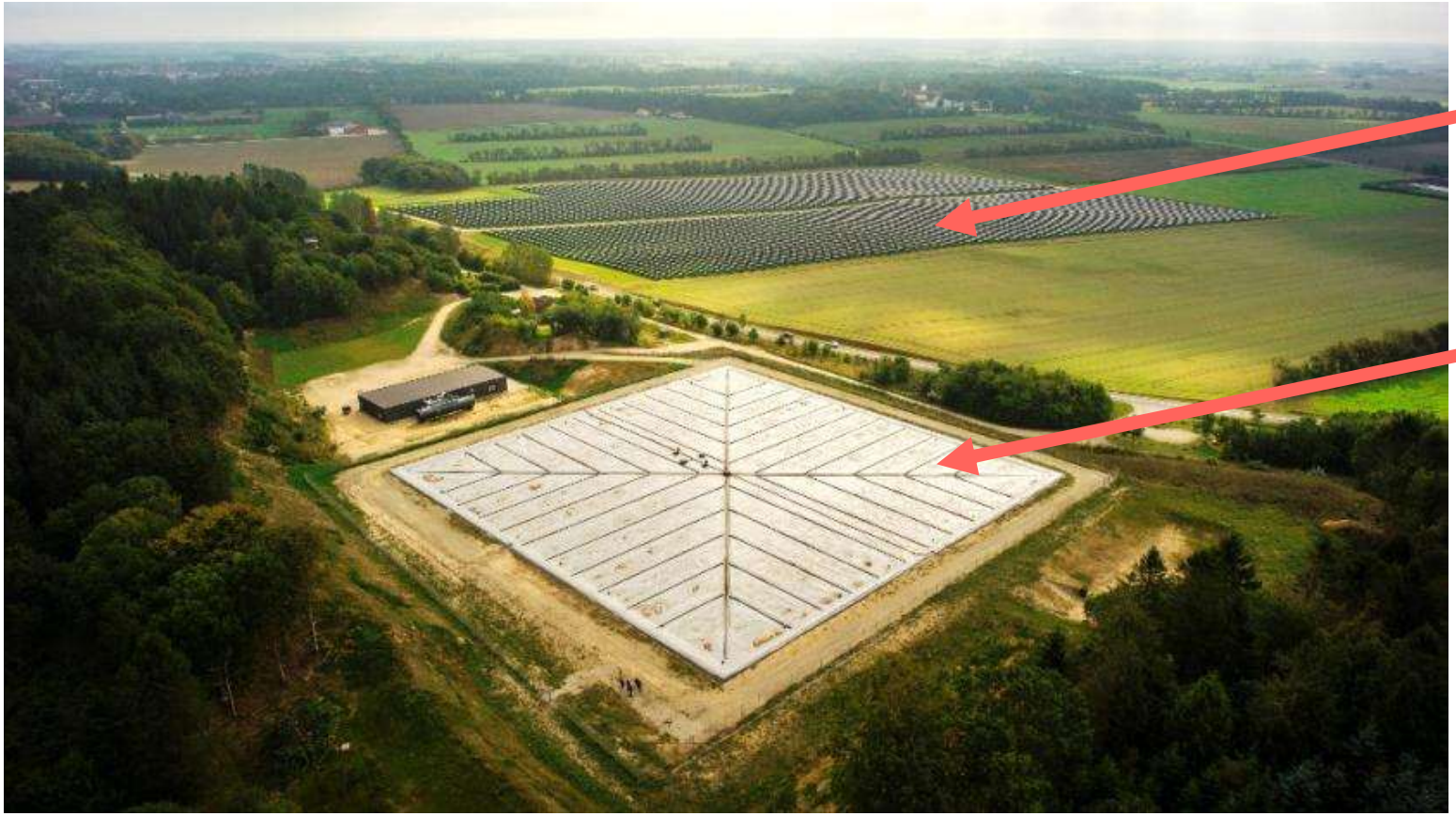
10 billion people
4 billion middle class

The global economy will grow 4 times by 2050

IPCC roadmap for 1,5°C Carbon law



STORE SOLAR HEAT FROM SUMMER TO WINTER LIKE IN THE DANISH VILLAGE DRONNINGLUND



26 MW (37,500 m2) solar collector

Heat storage 60,000 m3

Since 2012, 50% of the heat in Dronninglund has come from solar-powered district heating

TOFTLUND SOLAR DISTRICT HEATING

27 000 m2
solar collector

Heat storage
12 500 m3

Since 2017, 50% of the heat in Toftlund has come from solar-powered district heating

EU APRIL 22ND : PROMOTE SOLAR THERMAL

EUROPEAN COMMISSION

Brussels, 22.4.2026
COM(2026) 370 final

COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS

AccelerateEU - Energy Union

Affordable and Secure Energy through Accelerated Action

Increasing the share of solar thermal energy not only in buildings but also in district heating and cooling systems, through the repowering of existing solar thermal installations and by starting new projects, including for thermal storage, could produce significant energy savings. This is particularly relevant for industry, especially in the food and beverage sector, the chemicals sector (especially for process heat requirements up to around 400 °C) and agriculture, such as for greenhouses.

Immediate action from the Commission to support Member States:

- [**May 2026** onwards] *On solar thermal, together with the Energy Efficiency Financing Coalition, the Commission will help develop public support schemes for the* ***uptake of large-scale solar thermal*** *projects.*

Stronger together — Absolicon and SavoSolar join forces

ABSOLICON

- Solar concentrator
- Industrial focus on Spain
- SDH installations in Sweden
- High profile Carlsberg, Birra Peroni, Heineken installations
- 100–160°C industrial process heat, steam

SAVOSOLAR

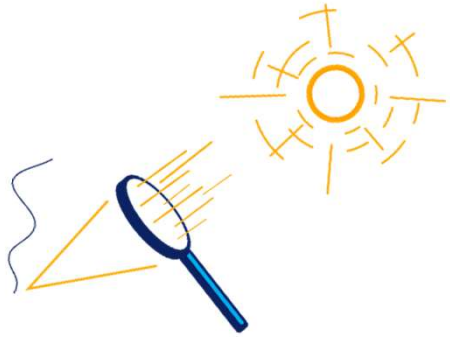
- Flat plate collector
- Many SDH installations
- Focus on France and Germany
- Large installed base
- 50–85°C district heating, seasonal storage, low-temperature industrial

Concentrating solar collectors

Flat plate solar collectors

ABSOLICON T160 SOLAR COLLECTOR

- 5.5 m long, 1 meter wide
- Follows the sun during the day
- 160 C heat and steam
- Service life at least 25 years
- The world's highest optical efficiency, for a small parabolic, over 76%

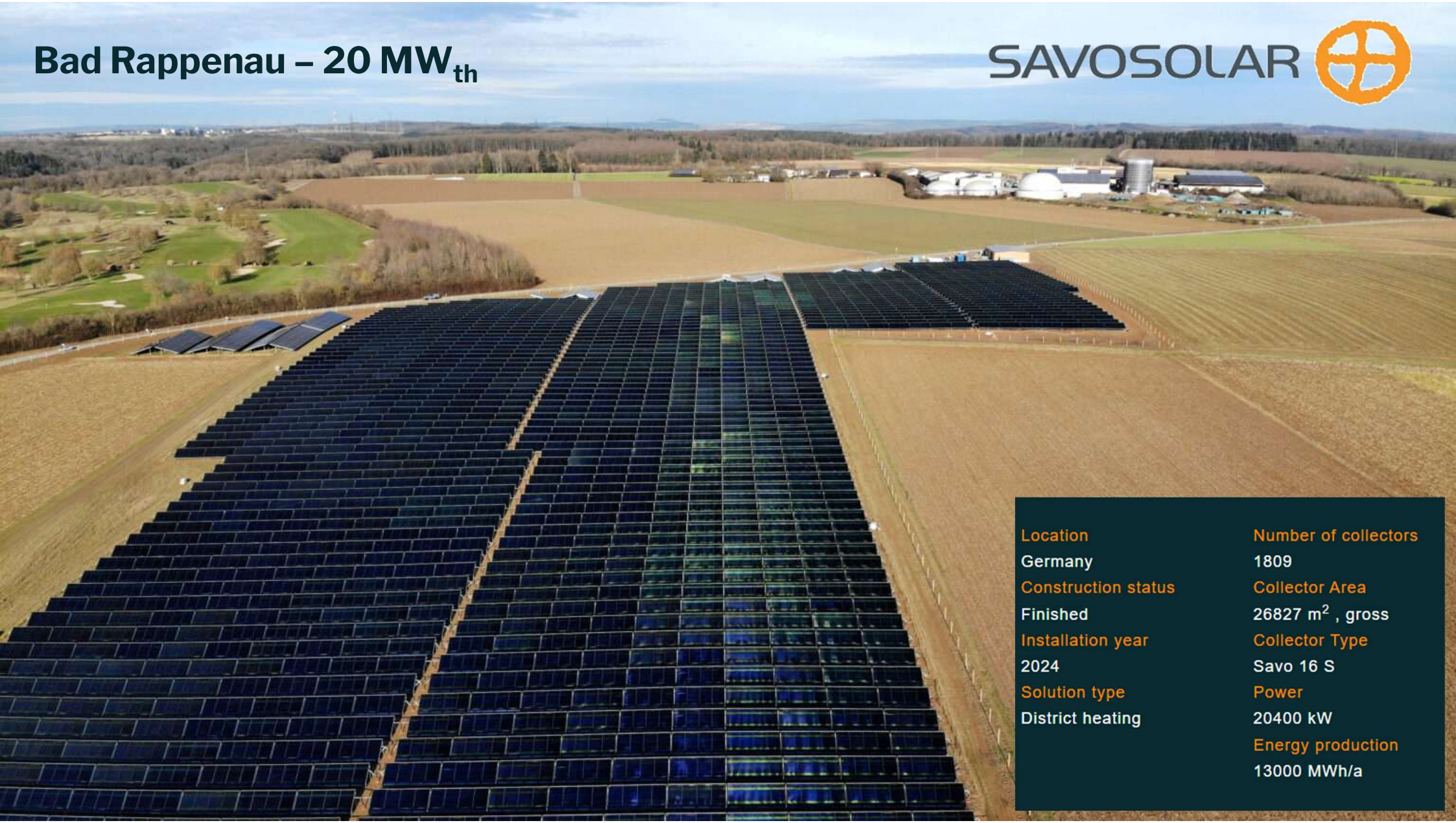


SAVOSOLAR 16S SOLAR COLLECTOR

- 6 m long, 2,5 meter high
- May follows the sun during the day
- 85 C pressurized hot water
- Service life at least 25 years
- The world's highest efficiency, for a non-evacuated flat plate collector

Bad Rappenau – 20 MW_{th}

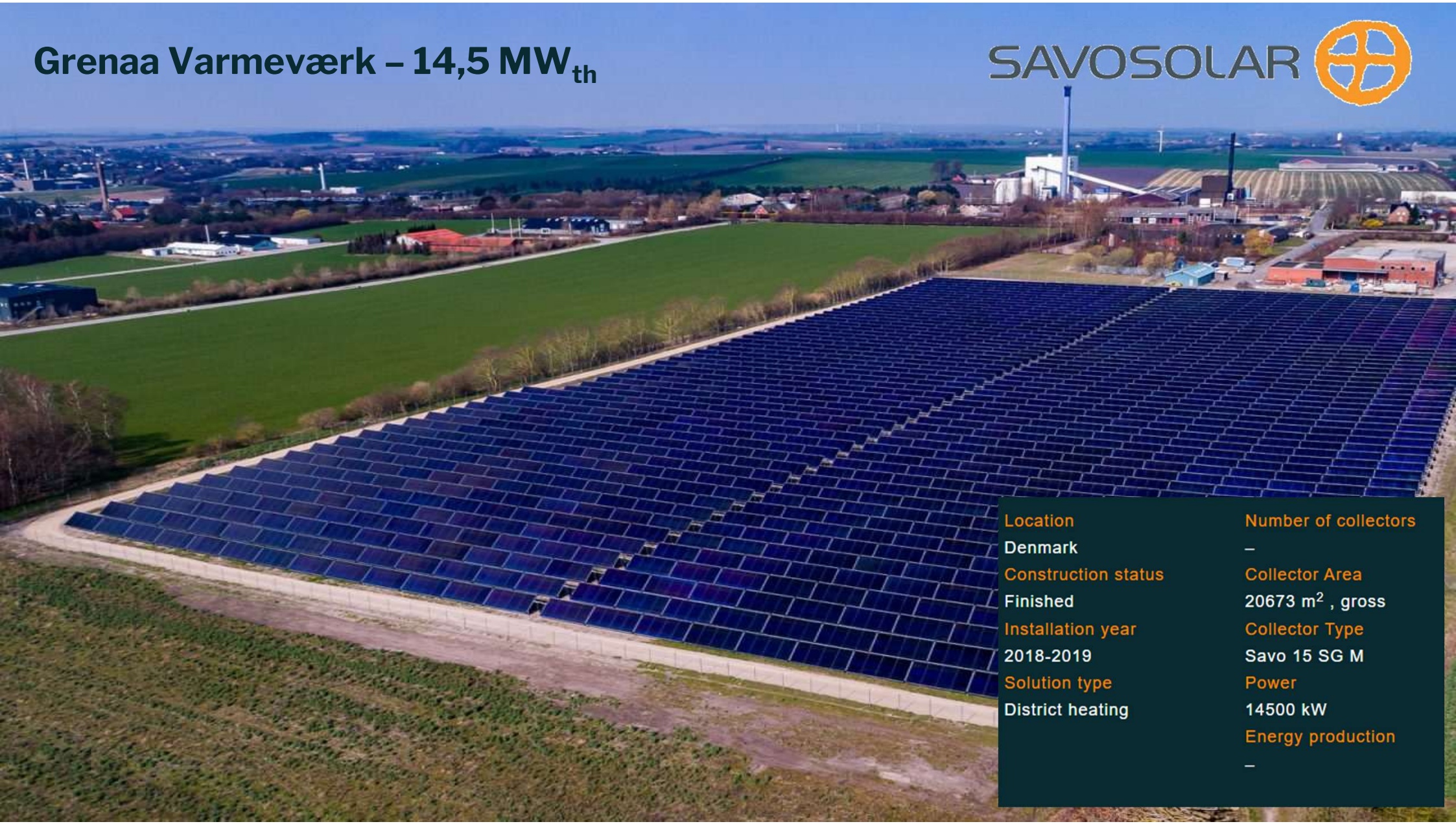
SAVOSOLAR



Location	Number of collectors
Germany	1809
Construction status	Collector Area
Finished	26827 m^2 , gross
Installation year	Collector Type
2024	Savo 16 S
Solution type	Power
District heating	20400 kW
	Energy production
	13000 MWh/a

Grenaa Varmeværk – 14,5 MW_{th}

SAVOSOLAR



Location	Number of collectors
Denmark	–
Construction status	Collector Area
Finished	20673 m^2 , gross
Installation year	Collector Type
2018-2019	Savo 15 SG M
Solution type	Power
District heating	14500 kW
	Energy production
	–

Grenaa Varmeværk – 14,1 MW_{th}

Location	**Number of collectors**
Denmark	–
Construction status	**Collector Area**
Finished	20125 m^2 , gross
Installation year	**Collector Type**
2016	Savo 15 SG
Solution type	**Power**
District heating	14100 kW
	Energy production
	–

Løgumkloster Fjernvarme – 11,5 MW_{th}

SAVOSOLAR

Location	Number of collectors
Denmark	1030
Construction status	Collector Area
Finished	15300 m^2 , gross
Installation year	Collector Type
2015-2016	Savo 15 SG
Solution type	Power
District heating	11500 kW
	Energy production
	–

Lübeck – 11 MW_{th}

Technology	Solar thermal, Heat storage and PV
Application	District Heating
Panels area	15,000 m^2
Yearly production	6 GWh_{th}
Solar capacity	11 MW_{th}
Heat storage tank	3 000 m^3

Högslätten Solar Park - 700 kW MW_{th}

ABSOLICON

Location	Härnösand, Sweden
Industry	SDH
Footprint	2100 m^2
Solar Field	1000 m^2
Heat	110 °C

Joint SDH references > 1000 m²

Customer	Application	Field size (m²)	Year	Country
Løgumkloster	District heating	16 440	2014-2016	Denmark
Jelling Varmevaerk (2016) Jelling Varmevaerk (2019)	District heating	16 455 5 165	2016 2019	Denmark
Fors A/S / Jyderup	District heating	9 943	2016	Denmark
Lolland Varme A/S / Søllested	District heating	5 059	2016	Denmark
Grenaa Varmevaerk	District heating	22 248	2019	Denmark
Fernwärme Ettenheim	District heating	1 661	2020	Germany
LFDE / Creutzwald	District heating	6 048	2021	France
Newheat / Narbonne	District heating	3 224	2021	France
Newheat / Pons	District heating	1 780	2021	France
Absolar / Cadaujac	District Heating	942	2021	France
Guangzhou Power Supply / Nansha	District heating	1 149	2021	China
Högslätten Solar park	District heating	1000	2023	Sweden
Bauer Holzenergie / Bad Rappenau	District heating	28 863	2024	Germany
Stadtwerke Lübeck Energie	District heating	12 576	2025	Germany
BürgerEnergie Steyerberg	District heating	13 694	2025	Germany

Joint heat storage references

Our experience in High-Capacity Thermal Storage

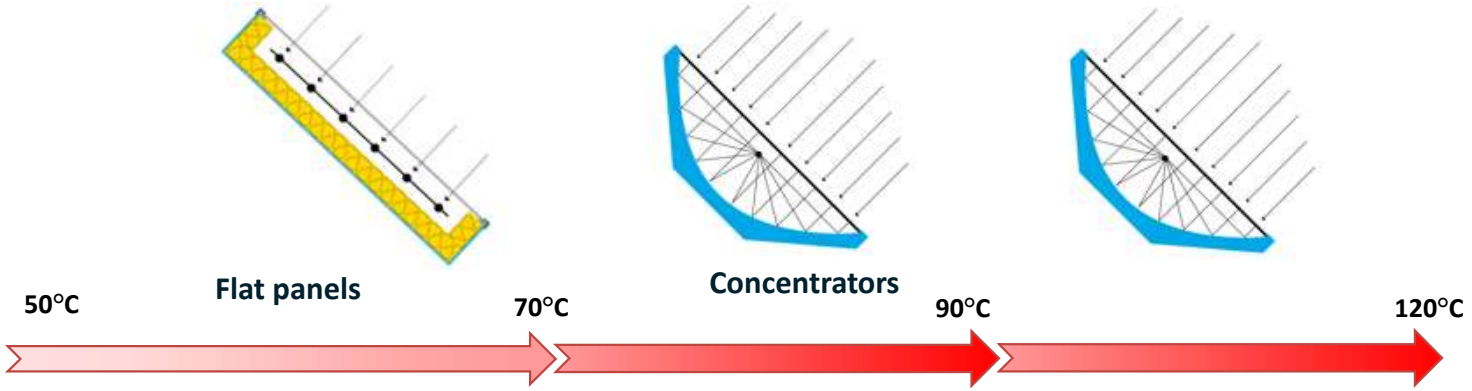
SITE	SEGMENT	SIZE [M³]	CAPACITY [MWH]		COMMISSIONING	COUNTRY
Bauer Biomasse Bad Rappenau	District heating	8 000	280	Non pressurized	2024	Germany
Steyerberg	District heating	17 000	595	Non pressurized	2025	Germany
Lübeck	District heating	3 000	105	Non pressurized	2025	Germany
Birra Peroni	Industry	30	2	Pressurized	2023	Italy
LFDE Creutzwald	District heating	2 000	70	Non pressurized	2021	France
Newheat Condat-sur-Vézère	Industry	500	18	Non pressurized	2019	France
Palau-del-vidre	Industry	2 000	70	Non pressurized	2025	France
Fernwärme Ettenheim	District heating	200	7,0	pressurized	2020	Germany
Guangzhou Power Supply Nansha	District heating	x	NA	borehole	2021	China
Absolar Cadaujac	District Heating	10 000	350,0	borehole	2021	France
Oulun Seudun Sähkö Liminka	District heating	15,0	0,5	pressurized	2018	Finland
Elenia Lämpö Voutilakeskus	Nursing home	9,0	0,3	pressurized	2017	Finland
TOTAL		**32 724**	**1 495**			

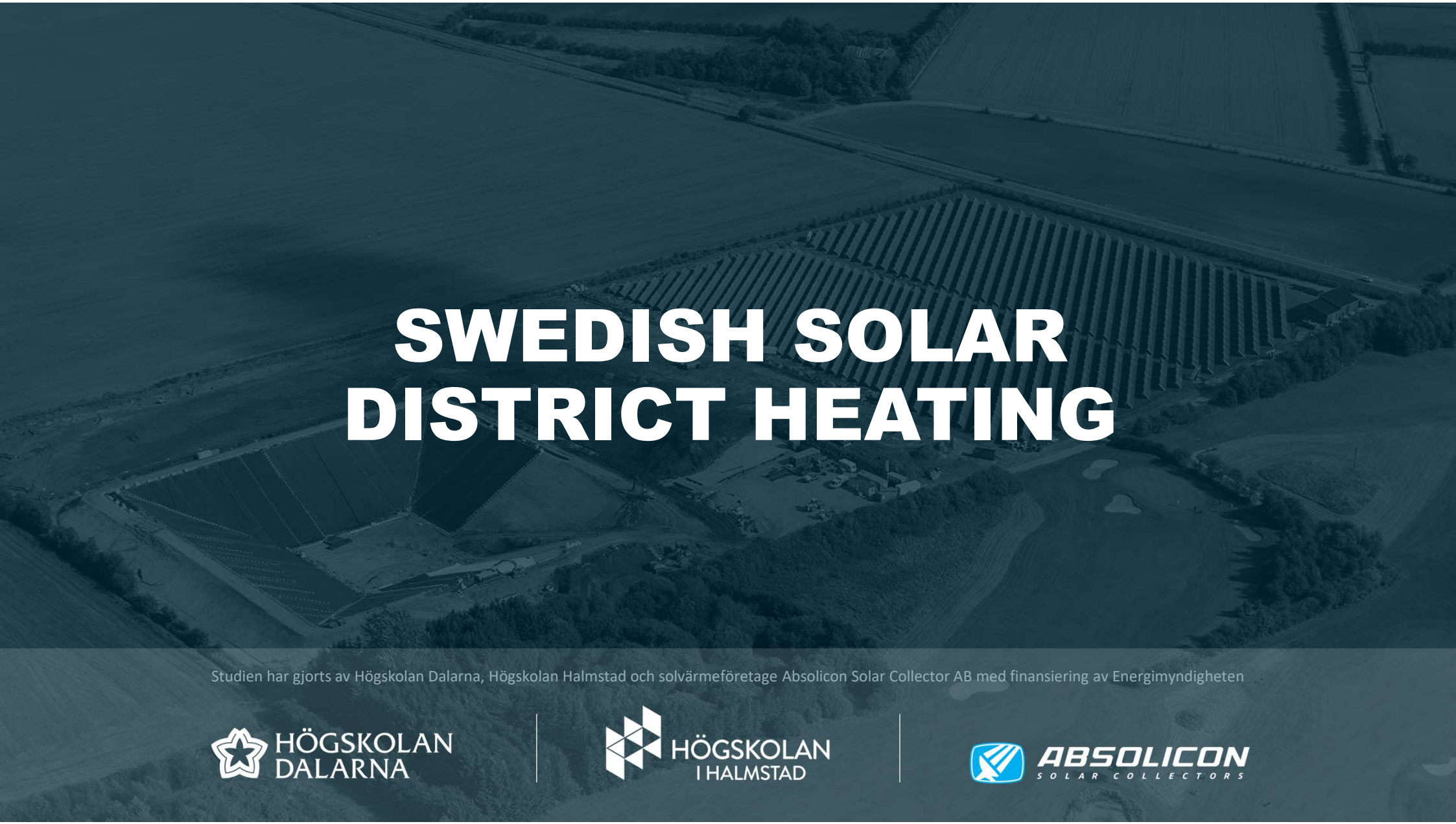
- Flagships in Germany with **8 000** and **17 000 m³** non pressurized less storage tanks installed
- Innovative project with BTES partners in China and France

COMBINATION OF FLAT AND CONCENTRATING PANELS

Flat panels more efficient on lower temperatures

Concentrators produce more heat at higher temperatures

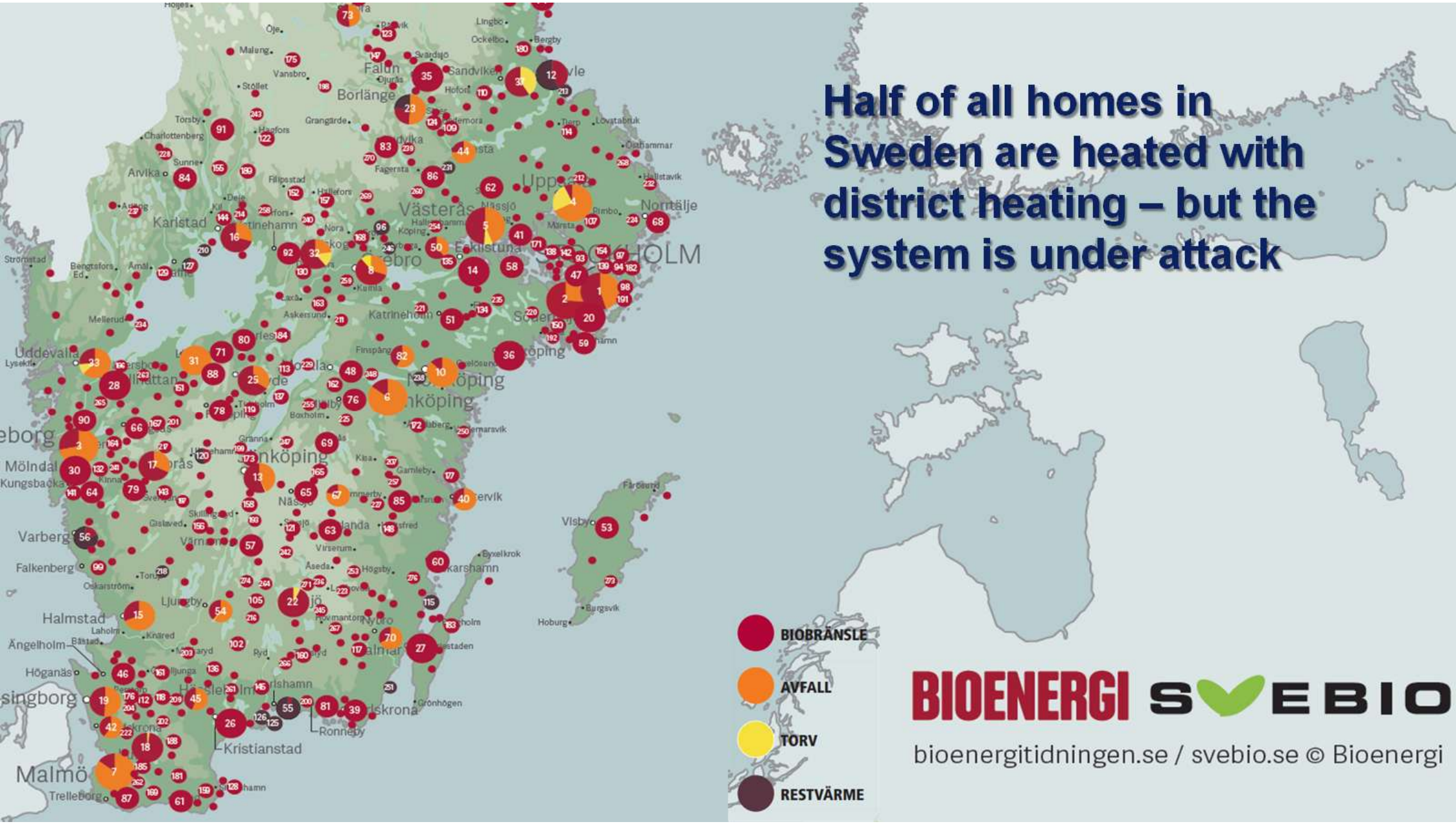


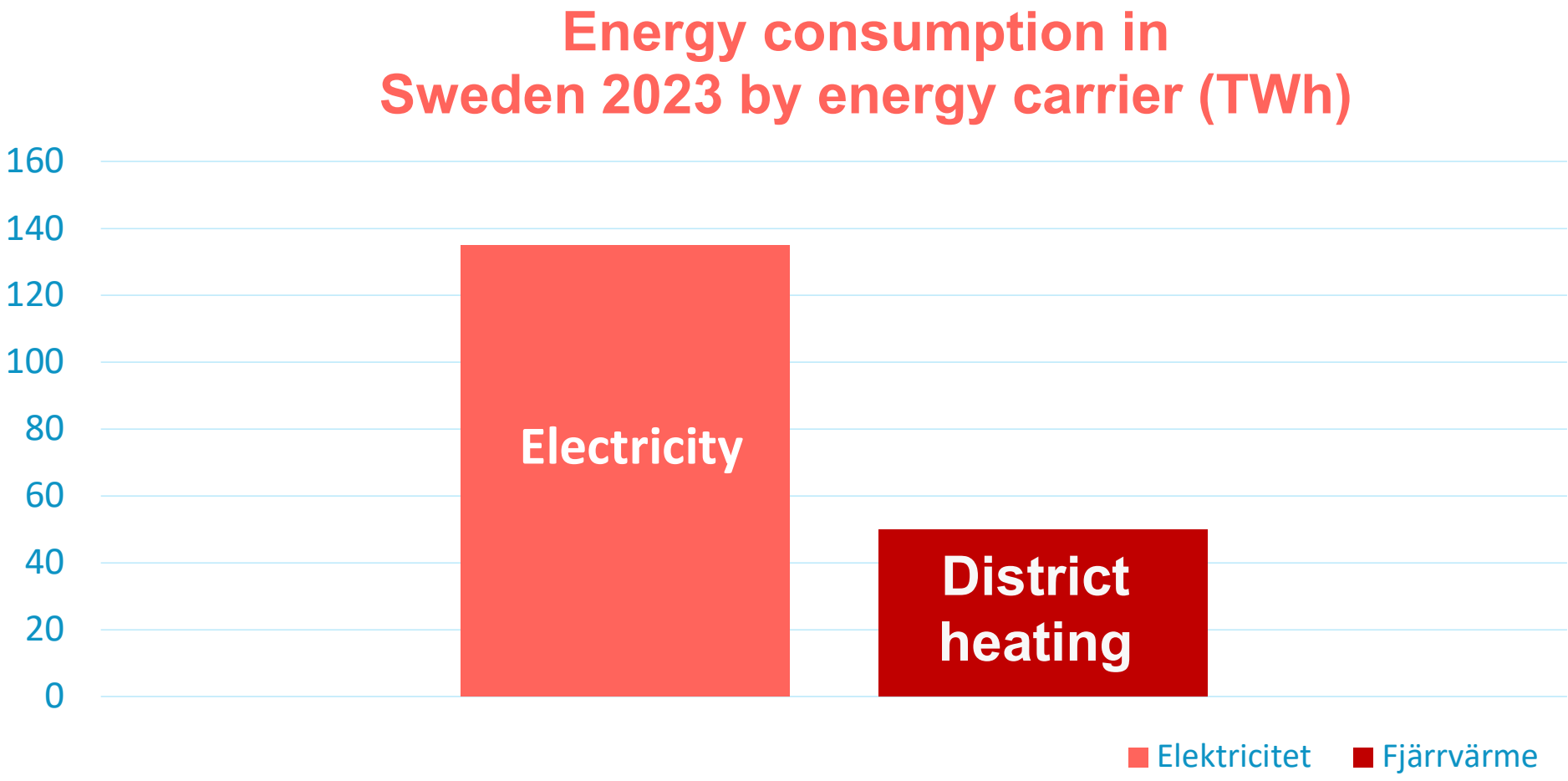


SWEDISH SOLAR DISTRICT HEATING

Studien har gjorts av Högskolan Dalarna, Högskolan Halmstad och solvärmeföretage Absolicon Solar Collector AB med finansiering av Energimyndigheten

HÖGSKOLAN DALARNA | HÖGSKOLAN I HALMSTAD | ABSOLICON SOLAR COLLECTORS


Half of all homes in Sweden are heated with district heating – but the system is under attack
BIOBRÄNSLE
AVFALL
TORV
RESTVÄRME
BIOENERGI
SVEBIO
bioenergitidningen.se / svebio.se © Bioenergi


Energy consumption in
Sweden 2023 by energy carrier (TWh)
160
140
120
100
80
60
40
20
0
Electricity
District heating
Elektricitet
Fjärrvärme

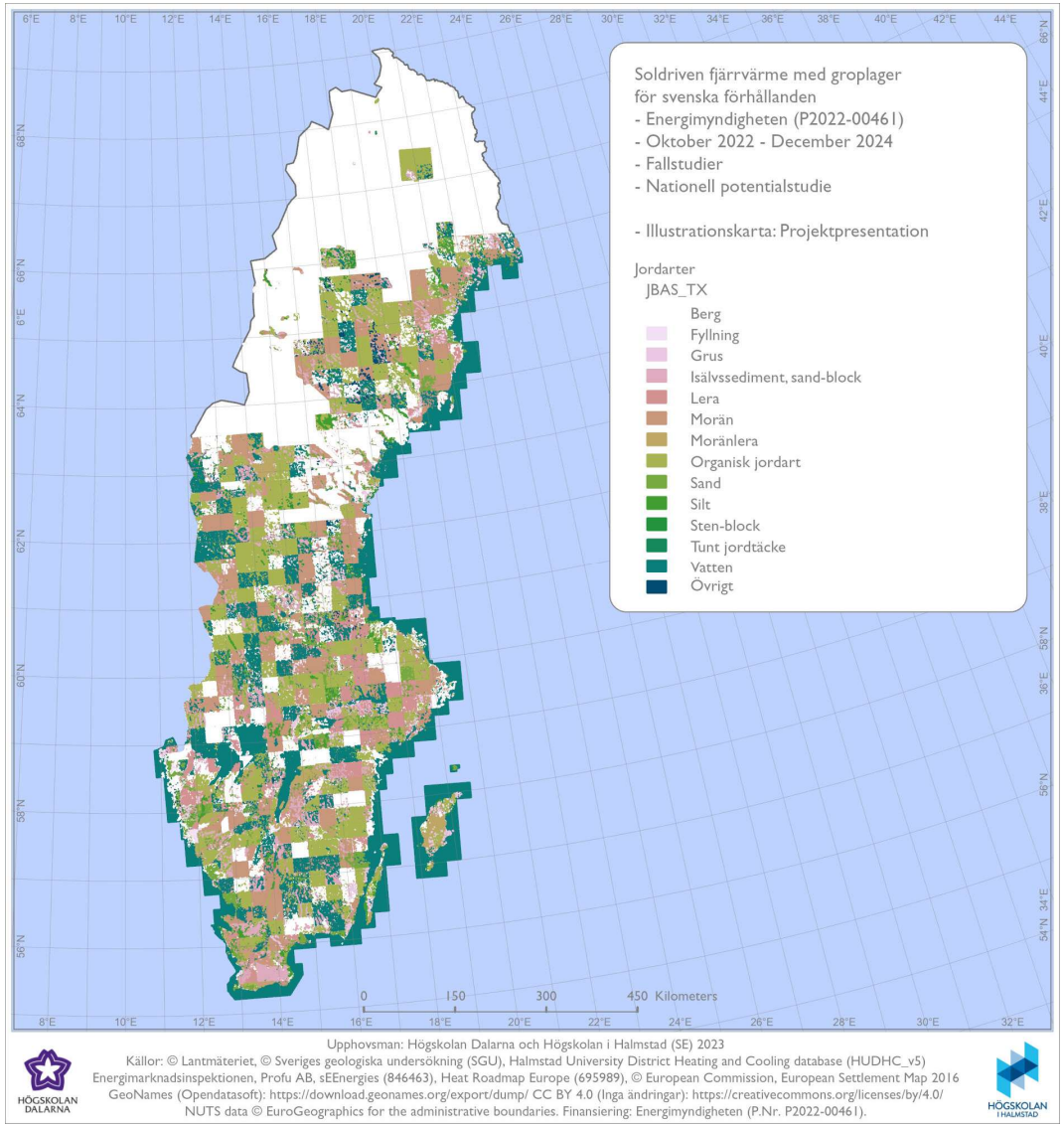
HÄRNÖSAND ENERGI OCH MILJÖ - HEMAB

Typical heating plant for a small town in Sweden

- Wood chip boiler with turbine for electricity generation
- Waste heat from Bionorr
- Pellet boiler for summer operation and peak load
- Electric boiler
- Smaller boilers out in the net for backup and tip
- Cheapest heat when the large wood chip boiler is used
- In the summer, the heat load is not sufficient and the wood chip boiler is then decommissioned for service
- If the large boiler were to run at low power during the summer, it would have low efficiency
- Heating is most expensive in summer

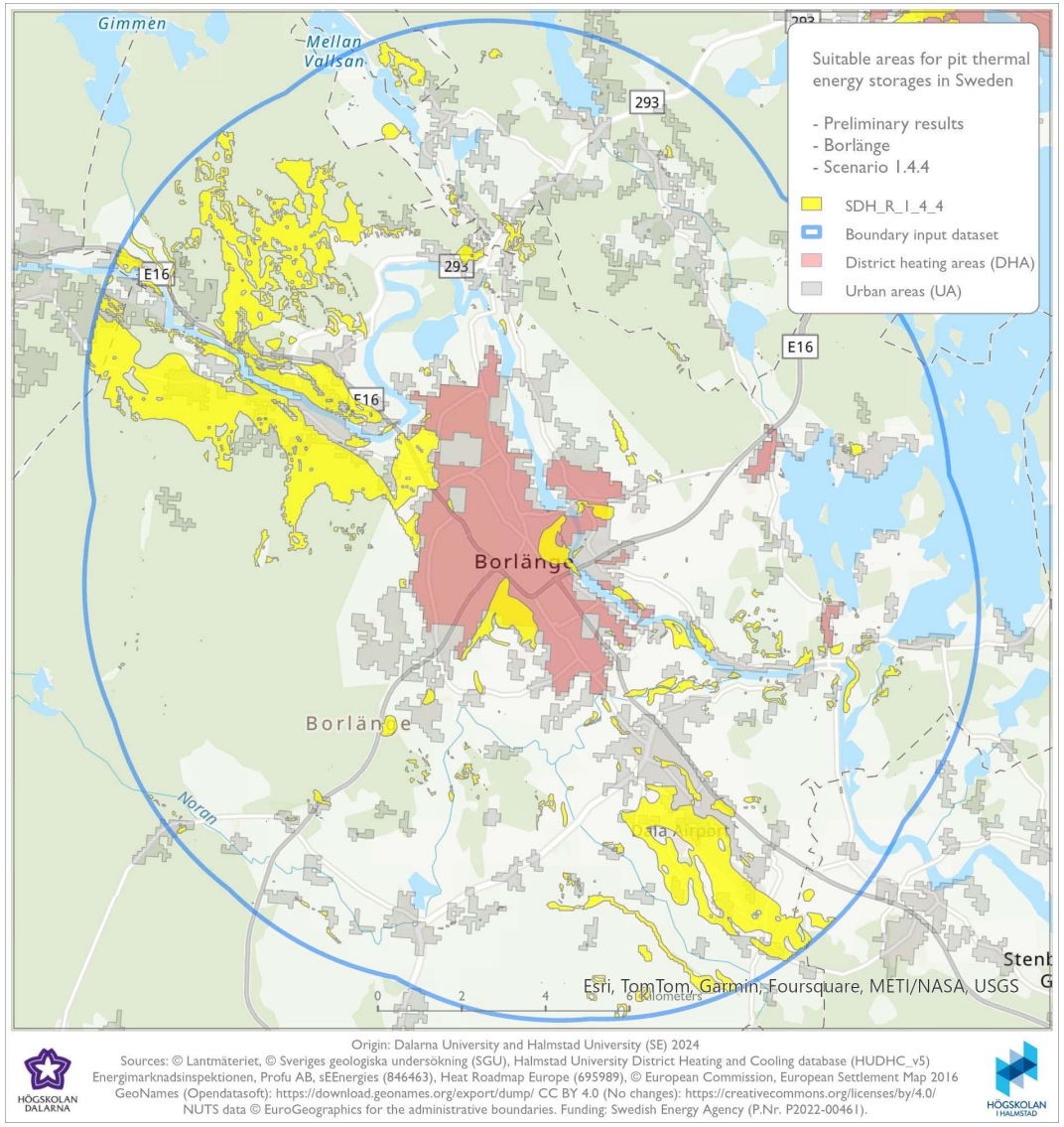
DATAINSAMLING

-
- **Heat demand densities**
- **District heating areas**
- **Elevation data**
- **Soil depth**
- **Soil type**

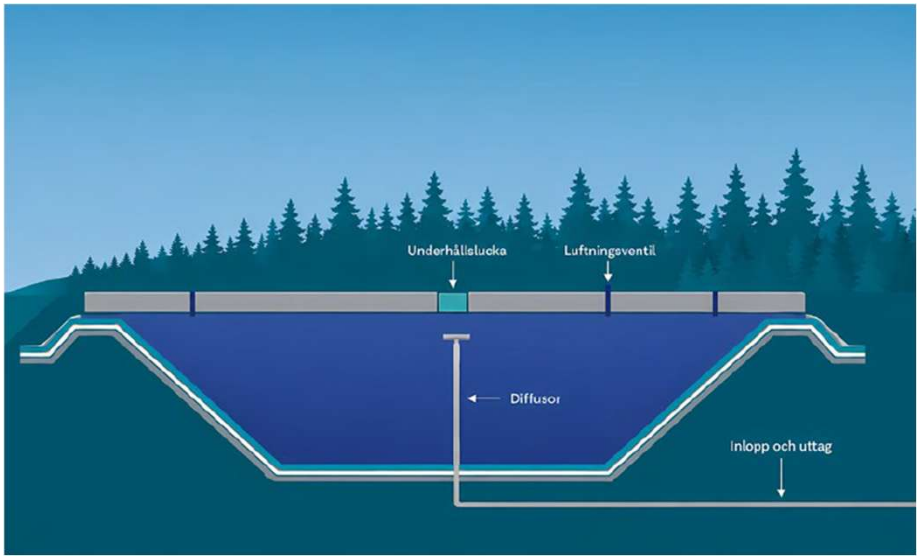


HEATING AREAS

- Urban areas (UA)
- District heating areas (DHA)
- Boundary input dataset
- Plan mark(slope <15%)
- Sufficient soil depth(>10m)
- Solid soil (no clay, slam)
- Forest land, industrial areas



200 SWEDISH CITIES HAS GOOD CONDITIONS FOR SOLAR THERMAL AND PIT STORAGE

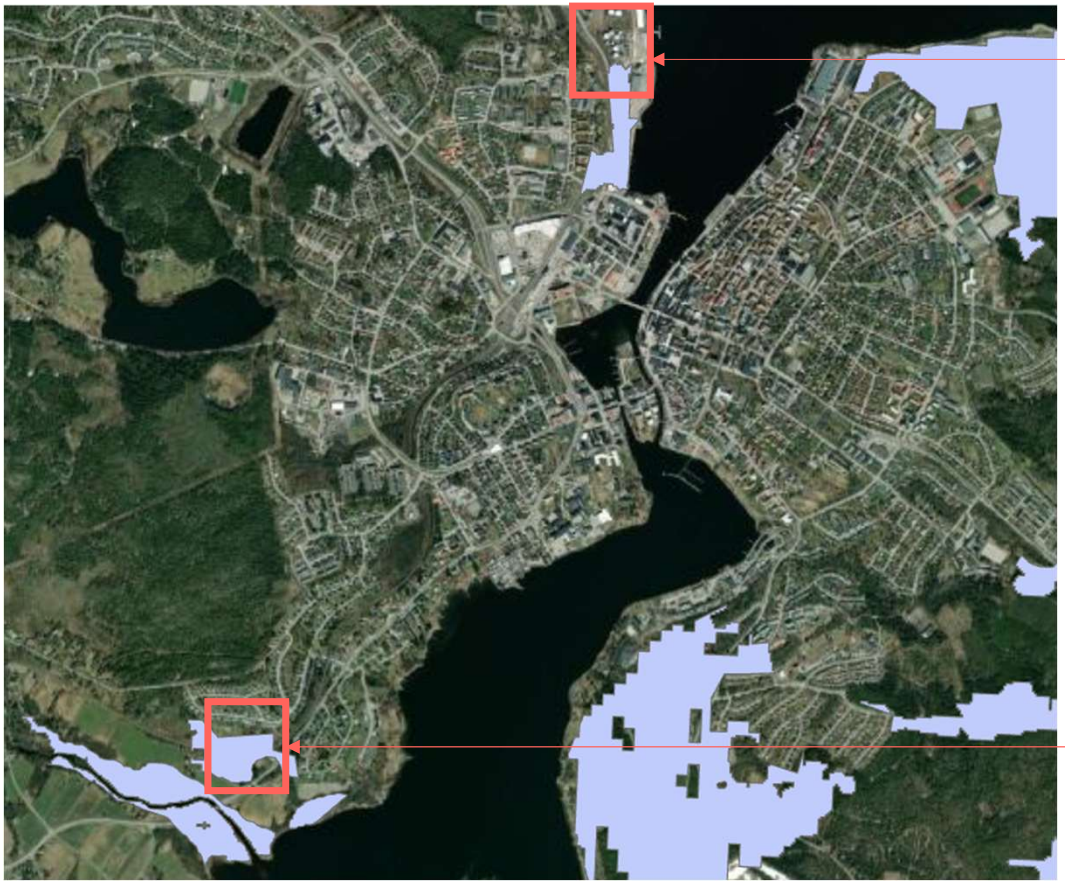


Soil conditions are suitable

Available land withing the district heating area

Sufficient heat load

FEASIBILITY STUDY: HÄRNÖSAND



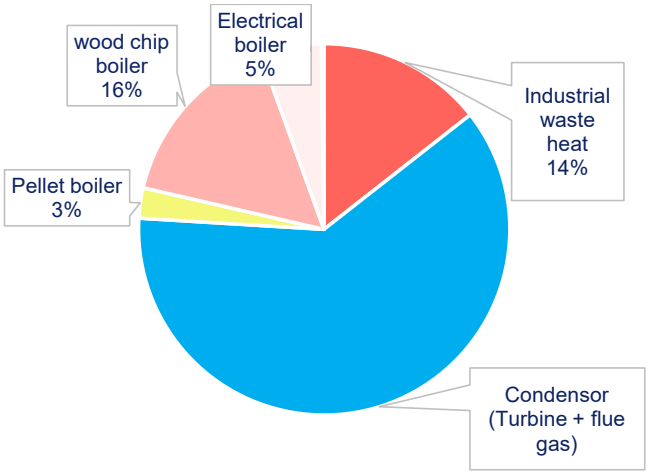
Boiler plant at the northern end of the network

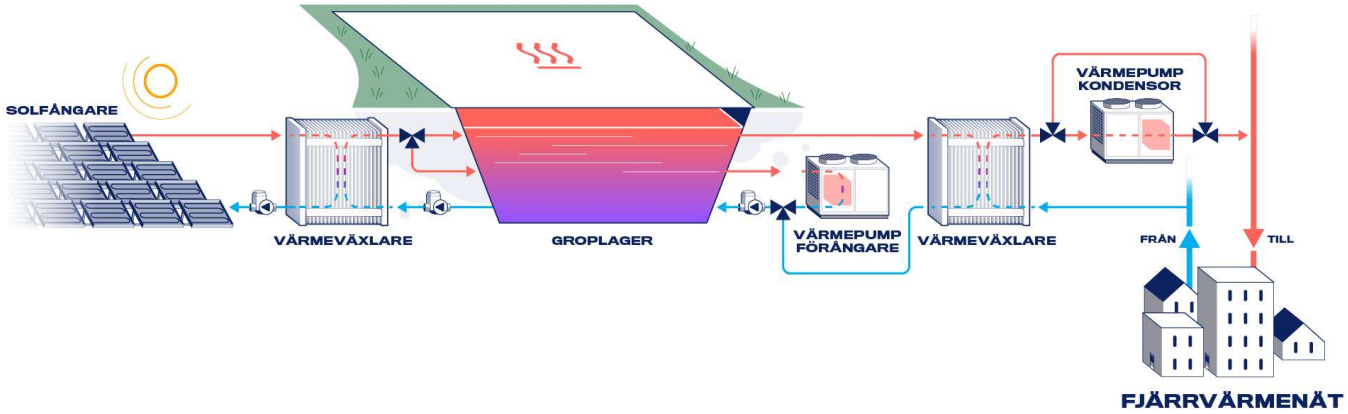
Connection to the grid where a larger pipe dimension is available to be able to supply the grid with a larger proportion of heat from the sun.
2.3 km to reach DN250.

Suitable land conditions at the southern end of the district heating network

SYSTEM DATA: HÄRNÖSAND

Return-forward connection is needed because there is flue gas condensation.
A heat pump is needed to be able to reach the supply temperature in late autumn (max 90 ºC in the pit layer)

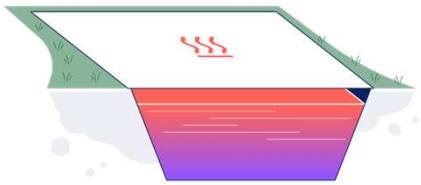




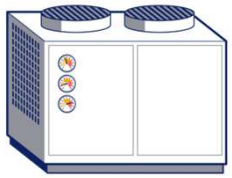
Heat demand: 208 GWh/year
Peak power: 55 MW

RESULTS HÄRNÖSAND

- Solar collector area: 85,000 m2
- Land area required: 255,000 m2



- Volume: 300,000 m3
- Land area required: 30,000 m2



- Heat pump effect: 15 MW
- Maximum temperature: 95 oC

45 GWh

Heat to the grid

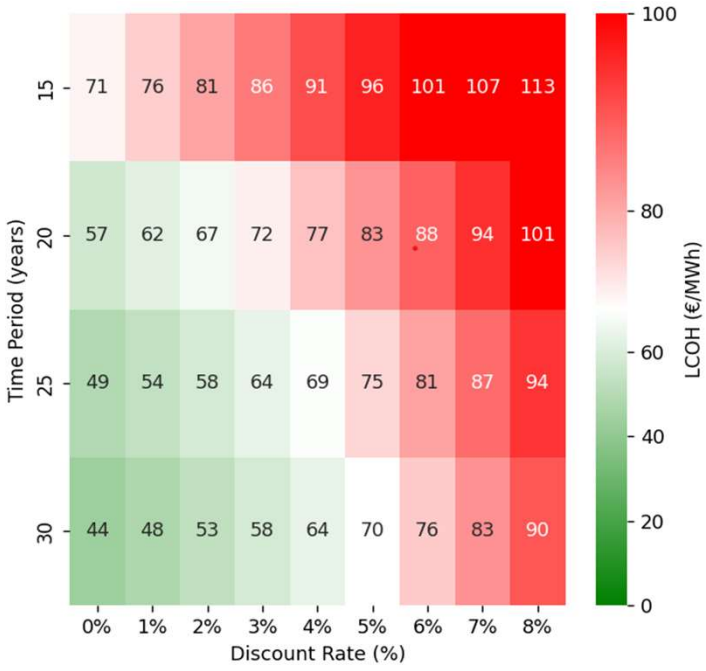
22%

Of the annual load

System capex

Solar collector M€	14.9
Pitstorage M€	16.8
Heat pump M€	6
Pipes to the network M€	0.7
Total capex M€	**38.3**

OPEX: 2% of CAPEX



Electricity price: 100 €/MWh

HOW TO INCREASE PROFITABILITY OF SOLAR THERMAL?

- More installations!
- Larger installation!
- More competition!
- Continued R&D!

This results in mature market and economy of scale with improved subcontractor networks and logistics

[**May 2026** onwards] *On solar thermal, together with the Energy Efficiency Financing Coalition, the Commission will help develop public support schemes for the* ***uptake of large-scale solar thermal*** *projects.*

Thank You

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